

FIGURE 1

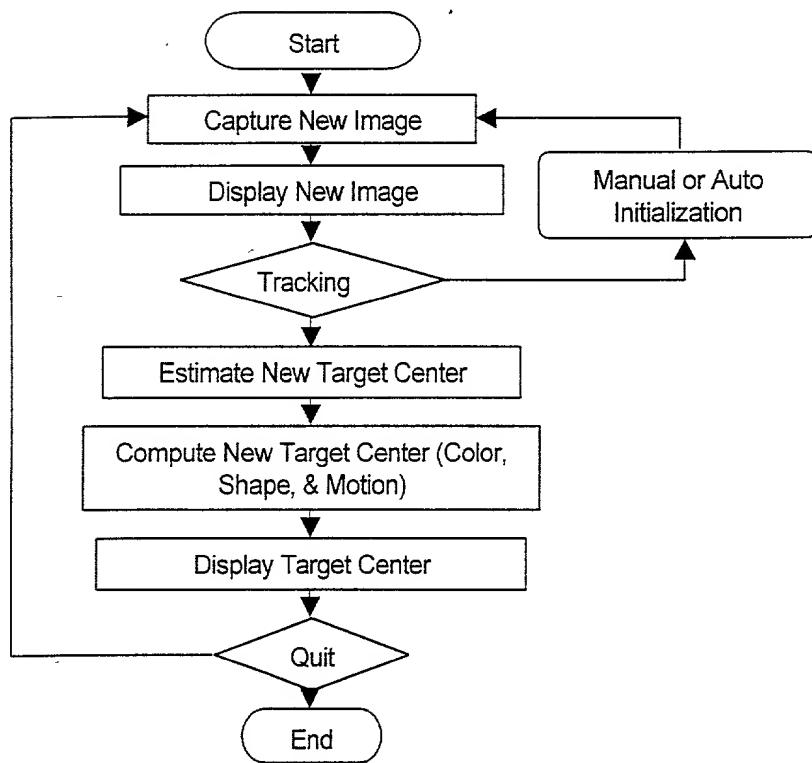


FIGURE 2

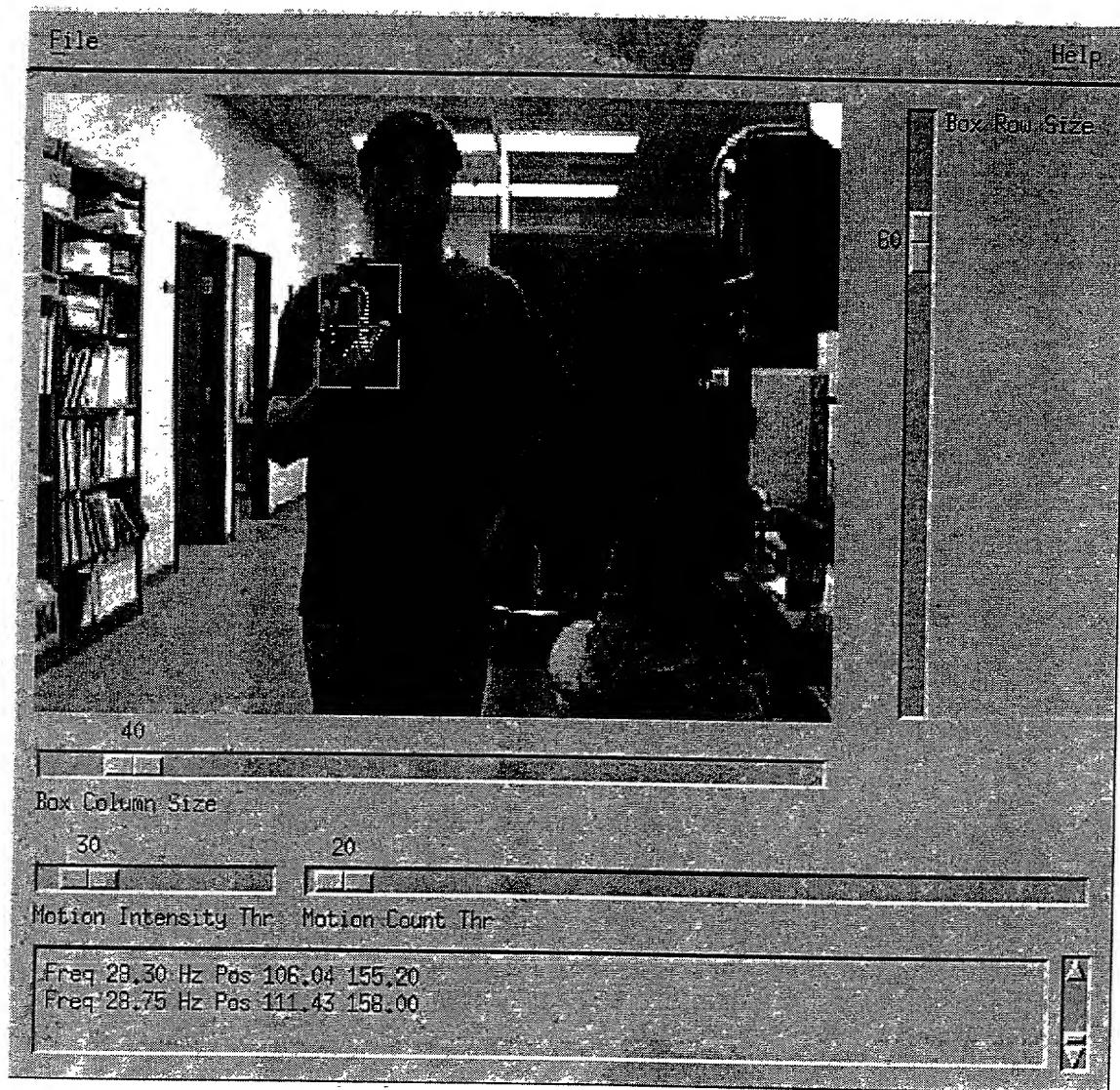


FIGURE 3

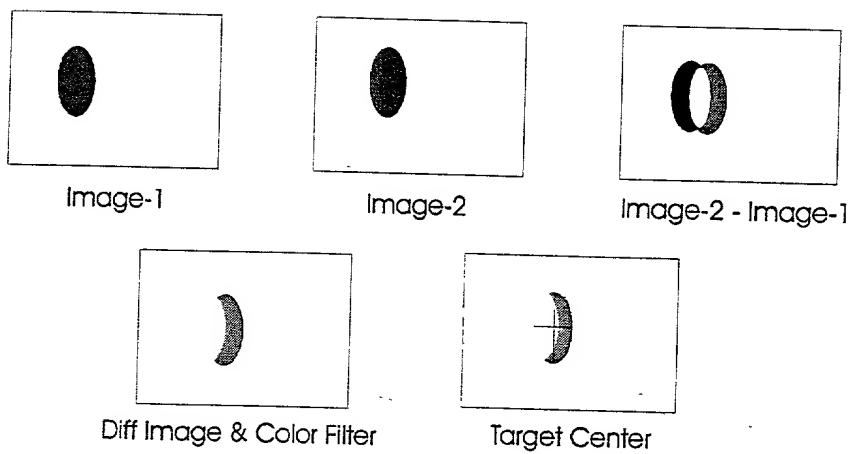


FIGURE 4

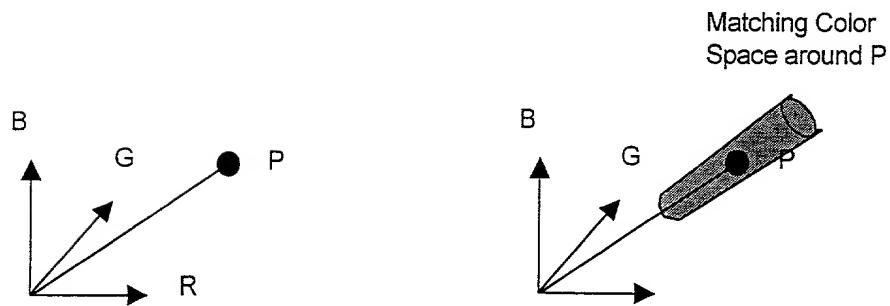


FIGURE 5

Given new image and the estimated target center as rc, cc and old target shape

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begin
    for i=rc-rs/2 to i=rc+rs/2
        for j=cc-cs/2 to j=cc+cs/2
            RGB = pixel(i,j)
            c = FindColorMatch(RGB)
            if c>0
                cr = c*i
                cc = c*j
                if this pixel lies on the previous shape template
                    sr = c*i
                    sc = c*j
                    s = c;
                else pixel shows movement
                    mr = c*i
                    mc = c*j
                    m = c;
                endif
                mark this pixel in the next shape template
                Nc = Nc+c
                Ns = Ns+s
                Nm = Nm+m
            else
                unmark this pixel in the next shape template
            endif
        endfor
    endfor

    cr = cr/Nc, cc = cc/Nc
    sr = sr/Ns, sc = sc/Ns
    mr = mr/Nm, mc = mc/Nm

    compute new target center as a weighted average
    newr = cr*cw + sr*sw + mr*mw
    newc = cc*cw + sc*sw + mc*mw
    velr = (newr-rc)/t
    velc = (newc-cc)/t

```

FIGURE 6

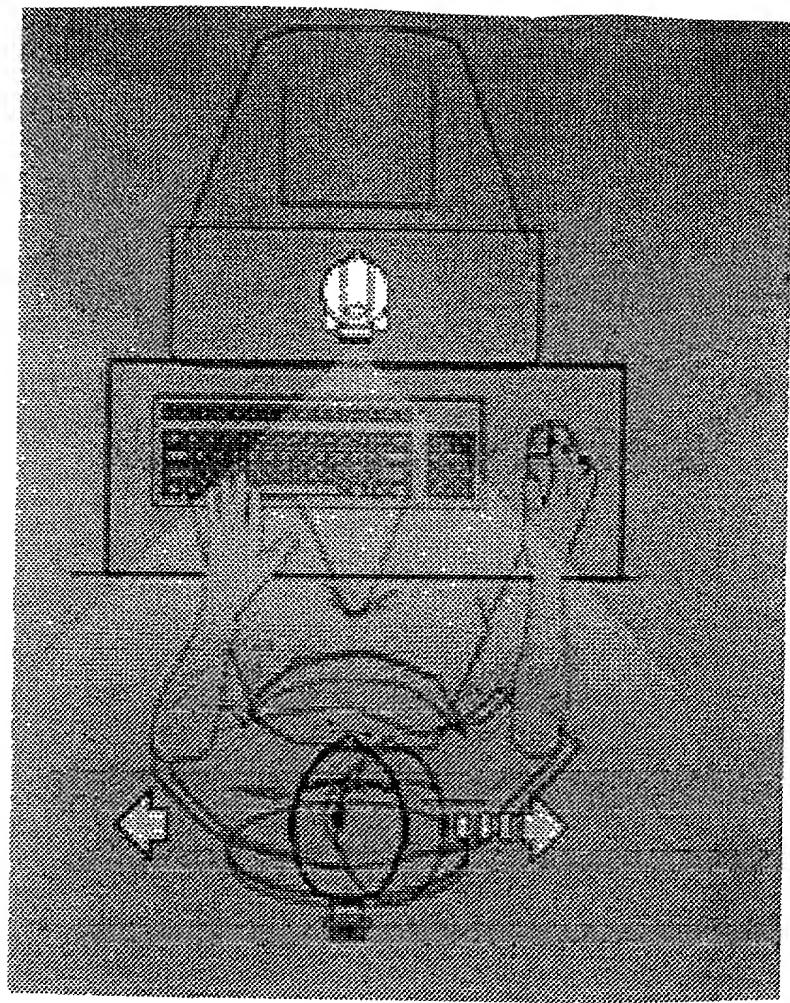


FIGURE 7